

Work Order ID 153459

Monday, November 21, 2016 9:22:50 AM

Page 1

Item ID: 647.4115

Revision ID:

Item Name: Shim

Start Date: 11/21/2016 Start Qty: 5.00

Required Date: 11/21/2016 Req'd Qty: 5.00

Reference:

Approvals:

Process Plan:

DAS
21
9-59

Date: NOV 22 2016

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

647.4100

n/c

110

0.03

110

Waterjet

Memo

0.01

FLOW CNC Waterjet

1-Cut as per Dwg

Dwg Rev: N/C

Prog Rev: N/C

2-Deburr if necessary

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.01

Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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153459

Monday, November 21, 2016 9:22:50 AM

N900040100

Setup Start *NS1*

Stop *NS2*

5

Cust Item ID:

Start Date: 11/21/2016 **Start Qty:** 5.00

5

Required Date: 11/21/2016 **Req'd Qty:** 5.00

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

130 QC8- Inspect parts - second check

0.00

130

0.02

QC

Memo

Quality Control

DAS
38
9-89
NOV 30 2016

140 Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

149.99

Outsource4

Memo

Outsource process - Anodize

Issue P/O to ATG : 34495

1- Black Anodize as per Dwg 647.4100

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Conformity is required

DEC 01 2016

150	Receive & Inspect for Damage & Mat'l Certs	0.00
-----	--	------

0.00

150

0.02

Packaging

Memo

Packaging

8 DEC 07 2016 DAS 6 9-80

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order ID 153459

Monday, November 21, 2016 9:22:50 AM

153459

Page 3

Item ID: 647.4115

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Shim

Start Date: 11/21/2016 Start Qty: 5.00

5

Cust Item ID:

Required Date: 11/21/2016 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC5- Inspect part completeness to step on W/O

0.00

160

QC

Memo

0.02

Quality Control

5

DAS
38
9-89

DEC 07 2016

190

Identify as per dwg & Stock Location: Cck112

0.00

190

Packaging

Memo

0.01

Packaging

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

5 DAS
6
9-89

DEC 08 2016

200

QC21- Final Inspection - Work Order Release

0.00

200

QC

Memo

0.08

Quality Control

16/12/13

MF
16-12-09

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Date :	Step #:	QTY Effective :			MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By	
340 102 08-8					Lead hand / Supervisor Approval Verification	
					QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY				
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
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Picklist Print

Monday, November 21, 2016 9:22:50 AM

Page 1

Work Order ID: 153459

153459

Parent Item: 647.4115

647 4115

Parent Item Name: Shim

Start Date: 11/21/2016

Required Date: 11/21/2016

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP REV:A 12.10.26 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.090		Purchased		No		110	sf	47.3000	0.022	0.11579			

M2024T3S 090

2024-T3 .090 sheet

OK 12/29

Location

Loc Qty

Loc Code

MAT021

47.3

123287

15.3

m130387

32

.2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NL 04510

SHEET 1 OF 1

DWG NO. 647.4100

REV: N/C

PREPARED BY: J. BECKER

DATE: 04/24/14

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: SHEETMETAL

APPROVED BY: ENGR

MFG

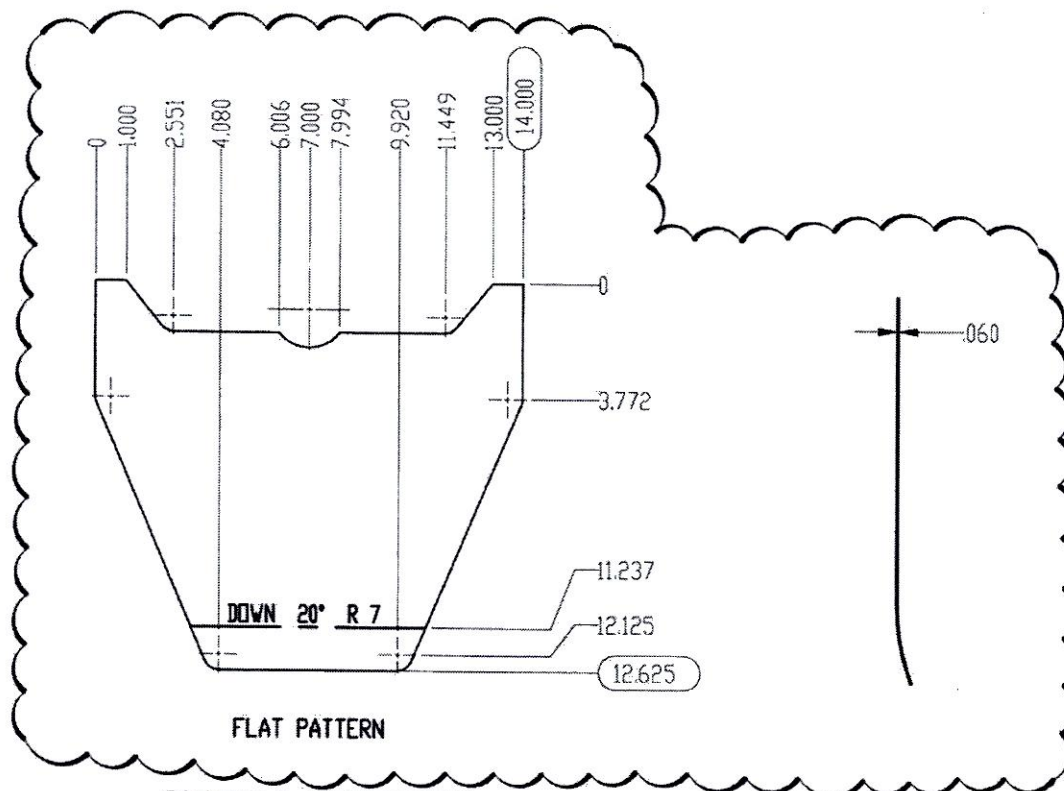
QC

EFF:

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: MODIFIED DOUBLER.



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 153459 MJS
16-11-22

SHEET 1, ZONE C2 IS:

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02866				SHEET 1 OF 1	
	DWG NO. 647.4100	REV: N/C	PREPARED BY R. ROSANO	DATE: 05/05/10	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: SHEET METAL					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: CURRENT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: CHANGED PRETREATMENT CALLOUT					

SHEET 1, ZONE A1 IS:

NOTES: UNLESS OTHERWISE SPECIFIED

- 1. MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4
- 2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE II,
CLASS 2, COLOR BLACK;
PRETREAT PR-148 ADHESION PROMOTER
PRIME IAW MIL-P-23377J TYPE I CLASS N

IS

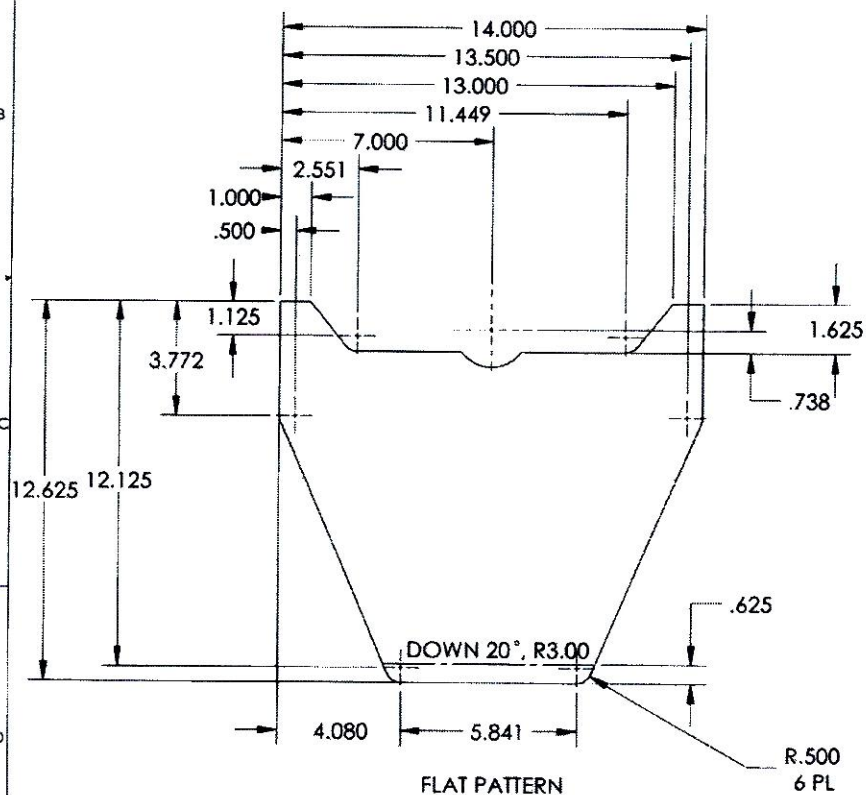
- 3. DEBURR AND BREAK ALL SHARP EDGES
- 4. IDENTIFY IAW MPP-120

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☐ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR	DER REVIEW REQUIRED ☐ YES ☒ NO

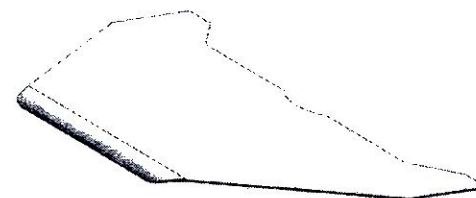
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NOTES: UNLESS OTHERWISE SPECIFIED

1. MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ-A-250/4
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE II, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120



.060



647.4110

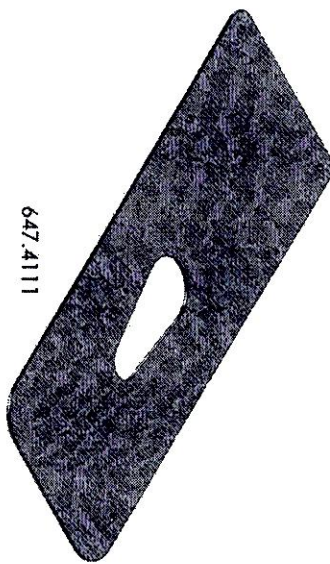
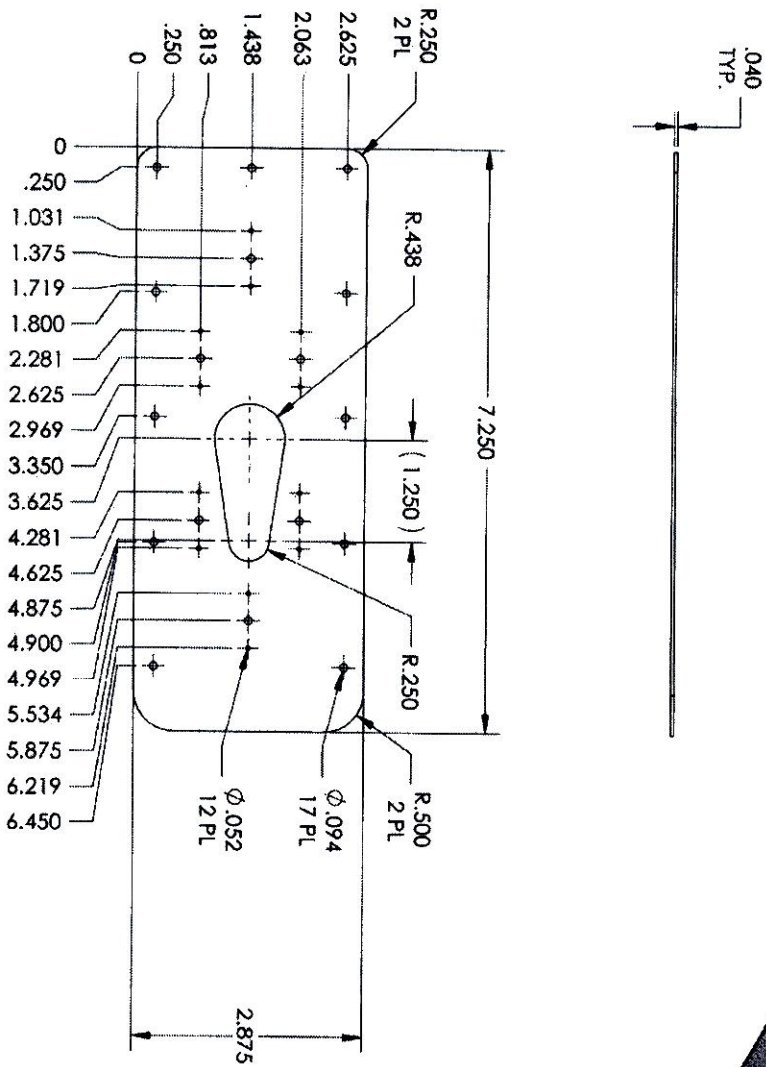
UNINCORPORATED ECN(s)

02866, 04510

QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC.
		647.4116	SHIM	△	△
		647.4115	SHIM	△	△
		647.4114	SHIM	△	△
		647.4113	CLIP	△	△
		647.4112	CLIP	△	△
		647.4111	DOUBLER	△	△
		647.4110	DOUBLER	△	△

ORIGINAL DATE (DD-MMM-YY)	DESIGNED BY P. ROSARIO	CHECKED BY D. DANIEL	PARTS LIST	
DATE 04/27/01	DESIGNED APPROVAL P. ROSARIO	CHECKED APPROVAL D. DANIEL	APICAL INDUSTRIES	
			2608 TEMPLE HEIGHTS DR.	
			OCEANSIDE, CA. 92056-3512 (760)724-5300	
			SHEETMETAL	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. PLACES DECIMALS: ±.01 2. PLACES DECIMALS: ±.005 ANGLES: ±.5°			SIZE B	SCALE NONE
			DWG. NO. 07A216	REV. N/C
			SHEET 1 OF 6	

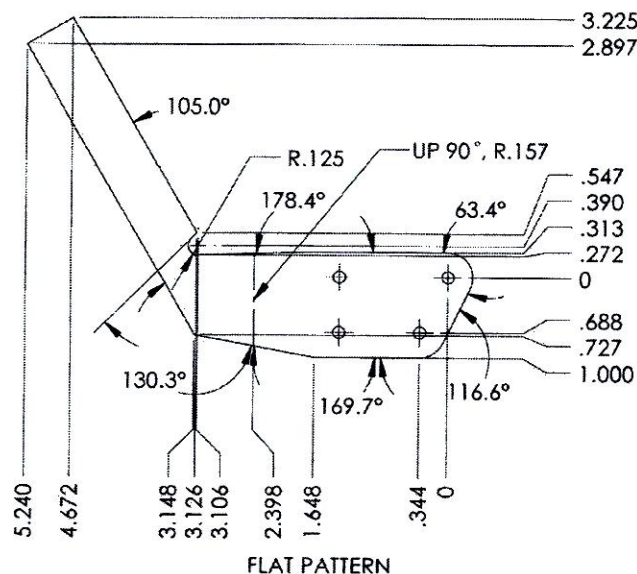
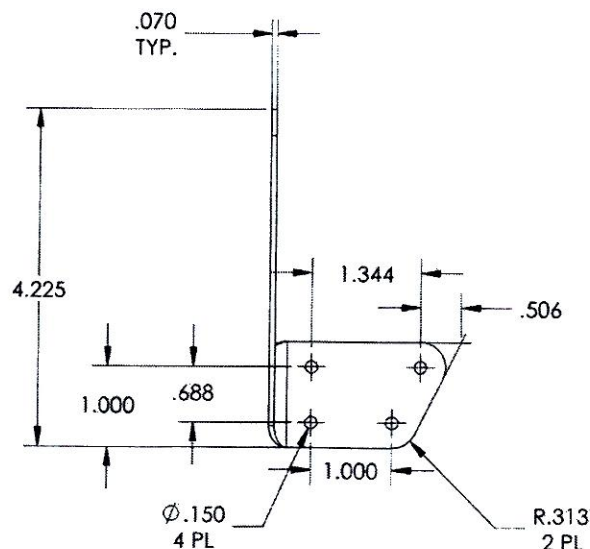
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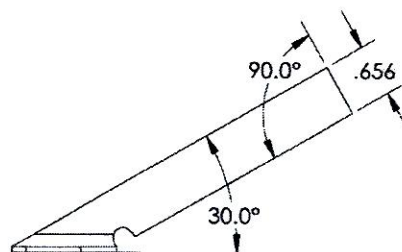
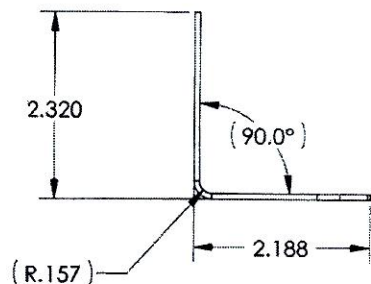
APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	
SHEETMETAL SHEET 2 OF 4	SHEET CODE: 647.4100 DATE: 07/24/02 SCALE: 1"=1'-0"
PROJECT: 000000 DRAWING: 000000 REVISION: 000000 DRAWN: 000000 CHECKED: 000000 APPROVED: 000000	SHEET: 2 OF 4 DATE: 07/24/02 SCALE: 1"=1'-0"

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REV	DESCRIPTION	DATE	APPROVED



FLAT PATTERN



647.4113 SHOWN
647.4112 OPPOSITE

ORIGINAL DATE (MM/DD/YY) DRAWN BY P. POSEY CHECKED BY D. BARBER DRAWING APPROVAL P. BRAY DESIGNED BY CONTRACTING	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMAL ±.01 3 PLACE DECIMAL ±.005 ANGLES 1°	SHEETMETAL SIZE CODE CODE DWS. NO. REV. 8 07M25 647.4100 N/C SCALE NONE SHEET 3 OF 4

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REV	DESCRIPTION	DATE	APPROVED

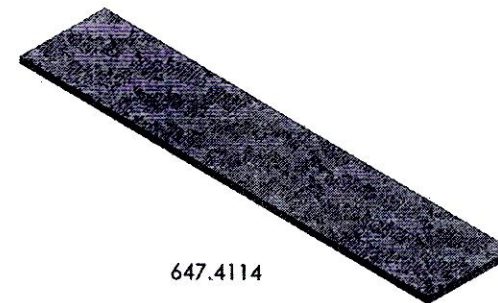
.063



4.80

.984

647.4114



ORIGINAL DATE (DD/M/YY)		APICAL INDUSTRIES	
DRAWN BY P. ROSANO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CHECKED BY D. BAKER		SHEETMETAL	
DRAWING APPROVAL P. ROSANO		647.4100	
CONTRACT NO.		N/C	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ± .01 ANGLES ± .1°		SIZE CAGE CODE DWG. NO.	REV.
		B 07A126	N/C
		SCALE NOTE	SHEET 4 OF 6

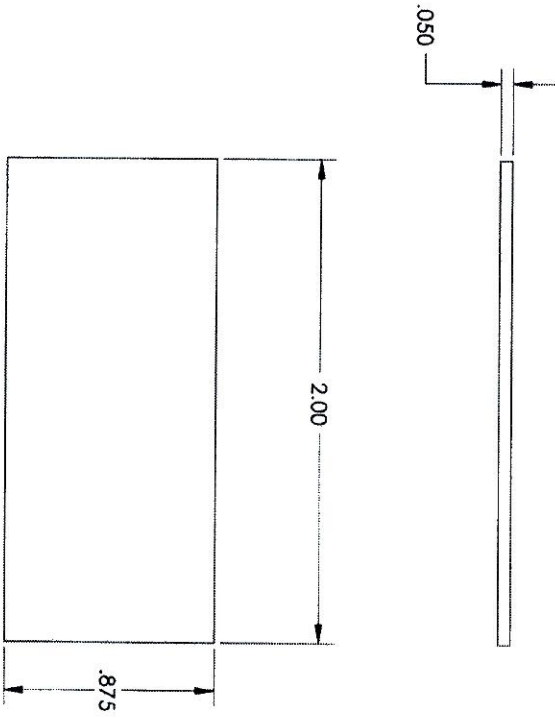
[illegible]

3.25

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SHEET METAL 2808 TEMPLE HEIGHTS DR OCEANSIDE, CA 92056-3512 (760) 724-5300		SCALE NONE 647 4100 5 OF 6	
APICAL INDUSTRIES 2808 TEMPLE HEIGHTS DR OCEANSIDE, CA 92056-3512 (760) 724-5300		SHEET METAL 2808 TEMPLE HEIGHTS DR OCEANSIDE, CA 92056-3512 (760) 724-5300	

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REV	DESCRIPTION	DATE	APPROVED

COMPANY NAME APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5800	
DRAWING NO. 647.4100	
DESIGNED BY P. BROWN	CHECKED BY J. BROWN
DRAWN BY J. BROWN	APPROVED BY J. BROWN
MATERIAL 304 STAINLESS STEEL 1/4" THICK 2" WIDE 4" LONG	FINISH POLISHED
SCALE 1:1	SHEET 6 OF 6



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34495**

Purchase Order Date 12/1/2016

PO Print Date 12/6/2016

Page Number 2 of 3

Order From :

VC-ATG001

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613-446-4544

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB FCA - (Free Carrier)

3	152761	D2224 RAPEL ANCHOR REV. E	12/12/2016	6.00		\$25.00	\$150.00
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Yes

12/12/2016

FINISH: RED ANODIZE PER MIL-A-8625

Line Total: \$150.00

4	153490	647.1612 SPLICE PLATE REV. A	12/12/2016	16.00		\$6.90	\$110.40
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Yes

12/12/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

Line Total: \$110.40

5	153459	647.4115 SHIM REV. N/C	12/6/2016	5.00		\$6.25	\$31.25
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Yes

12/6/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

Line Total: \$31.25

DEC 07 2016

Note:

12/6/2016



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912643

Date: 06-Dec-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
4 ea	Part: 647.7910 Angle bracket Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20462 PO: 34495	Rev:	Line: 1
6 ea	Part: 646.9713 Body Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20463 PO: 34495	Rev: D	Line: 2
6 ea	Part: D2224 Rapel Anchor RED ANODIZE MIL-A-8625 TYPE II CLASS 2 Job: 20464 PO: 34495	Rev: E	Line: 3
16 ea	Part: 647.1612 Splice plate Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20465 PO: 34495	Rev: A	Line: 4
5 ea	Part: 647.4115 Shim Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20466 PO: 34495	Rev: N/C	Line: 5
1	Part: ADMINISTRATION FEE	Rev: N/A	

DEC 07 2016



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912643

Date: 06-Dec-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
ea	ADMINISTRATION FEE Job: 20467	PO: 34495	Line: 7
DATE: <u>6/12/16</u>			
CERTIFIED SIGNATURE: <u>[Signature]</u>			
RECEIVER SIGNATURE: _____			
Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. CERTIFICATE OF CONFORMANCE A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS. MADE IN CANADA.			